

study suggests that the recent findings of the OHTS² may not be generalisable to CCT measurements taken using the Orbscan II device.

References

- 1 Doughty MJ, Zaman ML. Human corneal thickness and its impact on intraocular pressure measures: a review and meta-analysis approach. *Surv Ophthalmol* 2000; **44**: 367–408.
- 2 Gordon MO, Beiser JA, Brandt JD, Heuer DK, Higginbotham EJ, Johnson CA *et al*. The Ocular Hypertension Treatment Study: baseline factors that predict the onset of primary open-angle glaucoma. *Arch Ophthalmol* 2002; **120**: 714–720.
- 3 Yaylali V, Kaufman S, Thompson HW. Corneal thickness measurements with the Orbscan topography system and ultrasonic pachymetry. *J Cataract Refract Surg* 1997; **23**: 1345–1350.
- 4 Giraldez Fernandez MJ, Diaz Rey A, Cervino A, Yebra-Pimentel E. A comparison of two pachymetric systems: slit-scanning and ultrasonic. *CLAO J* 2002; **28**: 221–223.
- 5 Chakrabarti HS, Craig JP, Brahma A, Malik TY, McGhee CNJ. Comparison of corneal thickness measurements using ultrasound and Orbscan slit-scanning topography in normal and post-LASIK eyes. *J Cataract Refract Surg* 2001; **27**: 1823–1828.
- 6 Wong AC, Wong CC, Yuen NS, Hui SP. Correlational study of central corneal thickness measurements on Hong Kong Chinese using optical coherence tomography, Orbscan and ultrasound pachymetry. *Eye* 2002; **16**: 715–721.
- 7 Rainer G, Petternel V, Findl O, Schmetterer L, Skorpik C, Luksch A. Comparison of ultrasound pachymetry and partial coherence interferometry in the measurement of central corneal thickness. *J Cataract Refract Surg* 2002; **28**: 2142–2145.
- 8 Bland JM, Altman DG. Comparing methods of measurement: why plotting difference against standard method is misleading. *Lancet* 1995; **346**: 1085–1087.
- 9 Marsich MM, Bullimore MA. The repeatability of corneal thickness measures. *Cornea* 2000; **19**: 792–795.
- 10 Lattimore MR, Kaupp S, Schallhorn S, Lewis R. Orbscan pachymetry: implications of a repeated measures and diurnal variation analysis. *Ophthalmology* 1999; **106**: 977–981.

SW Radford¹, R Lim² and JF Salmon²

¹University of Oxford
Oxford, UK

²Oxford Eye Hospital
Wood stock Road
Oxford OX26HE, UK

Correspondence: JF Salmon
Tel: +44 1865 224 360
Fax: +44 1865 224 515
E-mail: john.salmon@orh.nhs.uk

Sir,

Retinal infarction following lipoma excision in a patient with secondary ophthalmic artery stenosis
Eye (2004) **18**, 436–437. doi:10.1038/sj.eye.6700682

We present a case of ophthalmic artery stenosis manifesting after routine lipoma excision under general anaesthetic in a patient.

Case report

A 36-year-old patient presented to eye casualty with a 5-day history of acute reduction of vision in his left eye. The fall in his vision was noticed on waking up from a general anaesthetic, which was administered for excision of a large lipoma on the dorsum of the neck. There was a past history of bilateral treated retinoblastoma. It was suggested that external beam radiotherapy or possibly of plaque brachytherapy was used for treating the retinoblastoma in childhood. Unfortunately, no records of this treatment were available. Cataract extraction was subsequently performed to remove radiation-induced cataracts. Following treatment, he developed a meningioma of the right temporal lobe, which was removed surgically. He was a heavy smoker and a known case of coronary artery disease. Ocular examination revealed a visual acuity of hand movements in the right and 6/12 in the left eye. The right eye had a relative afferent pupillary defect. He was bilaterally aphakic. Fundus examination showed blurred disc margins in the left eye consistent with optic disc drusen, which were later confirmed on B scan ultrasound. Chorioretinal scarring suggestive of a regressed retinoblastoma was also visible along the superotemporal vessel. Nasal to the disc was an atrophic area with some exudates inferior to it. A refractile embolus was seen in the inferonasal artery. Fundus fluorescein angiography confirmed the optic disc drusen; the atrophic area nasal to the disc had blocked choroidal fluorescence indicating that it was the old plaque site for irradiation and an infarct inferonasal to the macula explaining the field defect. A magnetic resonance angiography showed a stenosis of the left ophthalmic artery about 2 cm from the globe (Figure 1).

A diagnosis of a retinal infarct secondary to stenosis of the ophthalmic artery was made. The infarct was probably caused by a combination of stenosis of the ophthalmic artery and a hypotensive episode during the general anaesthetic.

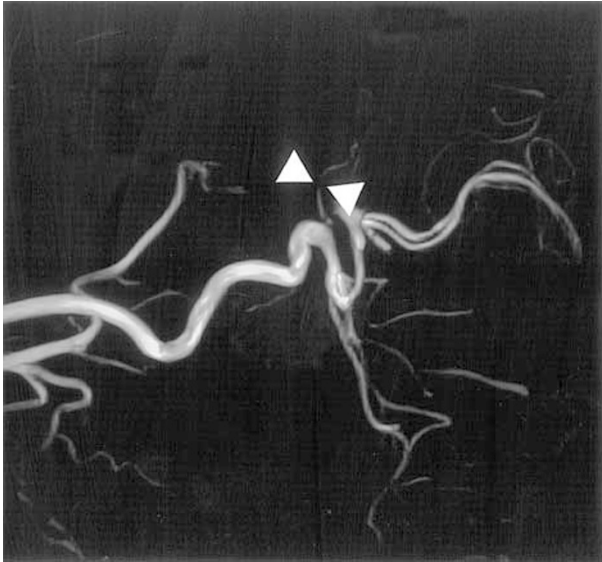


Figure 1 Magnetic resonance angiography showing stenosis of the ophthalmic artery 2 cm from the globe—marked with arrow.

Discussion

External beam radiotherapy¹ is an effective and established treatment for retinoblastoma. Radiation-induced cataract,⁴ radiation retinopathy, mild keratopathy, xerophthalmia,² and cosmetic facial deformity³ have all been reported following the treatment. Secondary orbital and facial nonretinoblastoma malignancies (Meningioma of the right temporal lobe as seen in the present case) in these patients are mostly radiation induced.⁵ Stenosis of the intracranial arteries⁶ following irradiation for craniopharyngioma, and that of vertebral arteries in the neck after X-ray treatment in childhood⁷ are well known; however, stenosis of the intraorbital ophthalmic artery secondary to external beam irradiation for retinoblastoma has not been reported before. The mechanism of stenosis appears to be similar as seen in other vessels.⁶ A combination of a stenosed artery, which we presume resulted from radiation-induced endothelial damage combined with an episodic drop in blood pressure during the general anaesthetic for lipoma excision, precipitated the retinal infarct in our patient.

References

- 1 Hungerford JL, Toma NM, Plowman PN, Kingston JE. External beam radiotherapy for retinoblastoma: I. Whole eye technique. *Br J Ophthalmol* 1995; **79**: 109–111.
- 2 Anteby I, Ramu N, Gradstein L, Miskin H, Pe'er J, Benezra D. Ocular and orbital complications following the treatment of retinoblastoma. *Eur J Ophthalmol* 1998; **8**(2): 106–111.

- 3 Egbert PR, Donaldson SS, Moazed K, Rosenthal AR. Visual results and ocular complications following radiotherapy for retinoblastoma. *Arch Ophthalmol* 1978; **96**: 1826–1830.
- 4 Brooks HL, Meyer D, Shields JA, Ballas AG, Nelson LB, Fontanesi J. Removal of radiation induced cataracts in patients treated for retinoblastoma. *Arch Ophthalmol* 1990; **108**: 1701–1708.
- 5 Roarty JD, McLean IW, Zimmerman LE. Incidence of second neoplasms in patients with bilateral retinoblastoma. *Ophthalmology* 1988; **95**: 1583–1587.
- 6 Kojima T, Waga S. Stenosis of the intracranial internal carotid artery by a craniopharyngioma: report of a case. *No Shinkei Geka* 1982; **10**(7): 777–782.
- 7 Liegl O. Double sided occlusion of the great vessels of the neck after X-ray treatment in childhood. *Klin Monatsbl Augenheilkd* 1975; **167**(5): 704–714.

M Gupta¹, P Puri¹, PA Rundle¹ and IG Rennie²

¹Department of Ophthalmology
Royal Hallamshire Hospital
Glossop Road, Sheffield S10 2JF, UK

²Department of Ophthalmology and Orthoptics
Royal Hallamshire Hospital
Glossop Road, Sheffield S10 2JF, UK

Correspondence: M Gupta
Tel: +44 114 271 3056
Fax: +44 114 271 3682
E-mail: mohiteye@yahoo.co.uk

Sir,

An unusual case of corneal perforation with crystalline lens extrusion secondary to pseudomonas keratitis in the presence of rheumatoid arthritis

Eye (2004) **18**, 437–439. doi:10.1038/sj.eye.6700683

A common complication of rheumatoid arthritis (RA) is dry eye, which can compromise the ocular surface and predispose it to infective keratitis. Both RA and infective keratitis can lead to corneal melt but this rarely results in the extrusion of intraocular contents. We report a case of spontaneous lens extrusion in a patient with dry eyes and infective keratitis.

Case report

A frail 96-year-old lady with previously well-controlled RA and dry eye presented to her GP with a 3-day history of a red and gritty dry eye. There had been no perception of light in this eye for several years due to rubeotic glaucoma secondary to central retinal vein occlusion.